

PURCHASE DESCRIPTION

X-Y RECORDER

RX0NP-G

- 1.0 GENERAL This procurement requires a high performance X-Y recorder which will accept paper sizes no larger than 216 x 280 mm (8-1/2 x 11 in).
- 2.0 CLASSIFICATION The equipment shall meet the requirements of MIL-T-28800(), Type III, Class 5, Style E, Color R for Navy shipboard, submarine, and shore applications with the following modifications and exceptions:
- a. The Electromagnetic Interference requirements of MIL-T-28800() are limited to CE01, CE03 (relaxed 20 dB), CS01, CS06, RE01 (relaxed 20 dB / limit search below 20 kHz / back panel search excluded), RE02 (14 kHz to 10 GHz), and RS03.
- 3.0 OPERATIONAL REQUIREMENTS
- 3.1 Main Frame
- 3.1.1 Paper Size: The writing surface shall accommodate paper sizes of 216 x 280 mm (8-1/2 x 11 in) or smaller.
- 3.1.2 Paper Holddown: The paper holddown shall be of the electrostatic type or pinch rollers in order to accommodate various paper sizes and to require no periodic maintenance other than cleaning.
- 3.1.3 Pens: A fast drying, disposable fiber tipped pen shall be used in the writing system.
- 3.1.4 Zero Set: Zero reference shall be capable of being placed anywhere on the writing area.
- 3.1.5 Writing Speed: Shall be at least 1,300 mm/second (51.2 in/second)
- 3.1.6 Linearity: Shall be $\pm 0.15\%$ of full scale or better
- 3.1.7 Resetability: Shall be better than $\pm 0.2\%$ full scale
- 3.1.8 Pen Lift: Local and remote control via contact closure or TTL level
- 3.1.9 Range Vernier: The range vernier shall be a continuous adjustment overlapping adjacent ranges, and shall be lockable.

3.2 DC Preamplifiers

- 3.2.1 X-Y Input Ranges: Shall be at least 0.5 mV/cm to 5 V/cm
- 3.2.2 X-Y Inputs: Floating signal pairs shall be available through front panel or rear connectors. Input shall be capable of being operated up to ± 200 Vdc with respect to chassis ground.
- 3.2.3 Accuracy: Shall be $\pm 0.3\%$ of full scale or better
- 3.2.4 Input Impedance: The input impedance shall be a constant 1 Megohm (or greater) on all ranges.
- 3.2.5 Common Mode Rejection: The common mode rejection shall be 100 dB minimum for dc and 90 dB minimum for ac.
- 3.3 Internal Time Base: An internal time base capability is required for Y-T applications in plotting a single input versus the internal time reference.
 - 3.3.1 Sweep Times: Shall include a minimum of four settings over a range of at least 1.25 to 25 sec/in
 - 3.3.2 Accuracy: At least $\pm 3.0\%$ of full scale
 - 3.3.3 Linearity: At least $\pm 1.0\%$ of full scale

4.0 GENERAL REQUIREMENTS

- 4.1 Power: 115/230 Vac $\pm 10\%$ single phase, 50, 60 or 400 Hz, 150 VA maximum
- 4.2 Dimensions: W 500 mm; D 350 mm; H 150 mm (19.6 in x 13.7 in x 5.9 in) maximum
- 4.3 Weight: 11 kg (24.5 lb) maximum
- 4.4 Calibration Interval: The calibration interval shall be 12 months minimum. The equipment shall be within all accuracy requirements specified herein, with a 72% or greater confidence factor following a calibration interval of 12 months.